SCIENCE AND TECHNOLOGY COMMITTEE

Fourth Report

THE RESEARCH COUNCIL SYSTEM: ISSUES FOR THE FUTURE

Volume I

Report, together with the Proceedings of the Committee

Ordered by The House of Commons to be printed
18 March 1997

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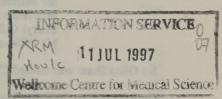
SCIENCE AND TECHNOLOGY COMMITTEE

Fourth Report

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Research - Finance

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The Science and Technology Committee is appointed under Standing Order No 130 to examine the expenditure, administration and policy of the Office of Science and Technology and associated public bodies.

The Committee consists of 11 Members. It has a quorum of three.

The Committee has power:

- (a) to send for persons, papers and records, to sit notwithstanding any adjournment of the House, to adjourn from place to place, and to report from time to time;
- (b) to appoint specialist advisers either to supply information which is not readily available or to elucidate matters of complexity within the Committee's order of reference;
- (c) to communicate to any other such committee and to the Committee of Public Accounts and to the Deregulation Committee its evidence and any other documents relating to matters of common interest; and
- (d) to meet concurrently with any other such committee for the purposes of deliberating, taking evidence, or considering draft reports.

Unless the House otherwise orders, all Members nominated to the Committee continue to be members of it for the remainder of the Parliament.

The following were nominated Members of the Committee on 13 July 1992:

Mr Spencer Batiste Dr Jeremy Bray Mr Malcolm Bruce Mrs Anne Campbell Cheryl Gillan Mr William Powell Sir Giles Shaw Sir Trevor Skeet Dr Gavin Strang Sir Gerard Vaughan Dr Alan W Williams

Sir Giles Shaw was elected Chairman on 15 July 1992.

On 9 November 1992 Mr Malcolm Bruce was discharged and Mr Andrew Miller added to the Committee.

On 16 November 1992 Dr Gavin Strang was discharged and Dr Lynne Jones added to the Committee.

On 7th November 1995 Cheryl Gillan and Mr William Powell were discharged and Mr Ian Bruce and Mr Patrick Thompson were added to the Committee.

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FOURTH REPORT

THE RESEARCH COUNCIL SYSTEM: ISSUES FOR THE FUTURE

The Science and Technology Committee has agreed to the following Report:

- 1. We resolved to inquire into each of the Research Councils on 13th December 1995. Since then we have conducted extensive inquiries and published full reports on the Particle Physics and Astronomy Research Council (PPARC) and the Natural Environment Research Council (NERC). However, it became clear that we would not have enough time to complete investigations into all aspects of the other Research Councils before the election, and we decided instead to conduct a series of oral evidence sessions with the Chairmen and Chief Executives of the remaining Research Councils. Accordingly, we took oral evidence on 12th February 1997 from Dr Bruce Smith and Professor Ronald Amann, Chairman and Chief Executive of the Economic and Social Research Council (ESRC), on 26th February 1997 from Sir Alistair Grant and Professor Ray Baker, Chairman and Chief Executive of the Biotechnology and Biological Sciences Research Council (BBSRC), and on 5th March 1997 from Sir David Plastow and Professor George Radda, Chairman and Chief Executive of the Medical Research Council (MRC), and Dr Alan Rudge and Professor Richard Brook, Chairman and Chief Executive of the Engineering and Physical Sciences Research Council (EPSRC).
- 2. These sessions of oral evidence revealed that there are areas common to the Research Councils on which we now wish to comment; some have been touched upon in previous reports, but we return to them since they appear to be of general concern. We hope that in the next Parliament this report will be of use to a new Science and Technology Committee.

The Post White Paper System

3. There had been fears expressed that changes in the organisation of publicly funded science following the Government's White Paper Realising our Potential might adversely affect the Science Base by concentrating too much power in the Office of Science and Technology (OST). There were two major causes of concern: the first was the substitution of the Advisory Board for the Research Councils (ABRC) by the Director General of the Research Councils (DGRC), and the second was that the resources available for basic research might be diminished by the White Paper's emphasis on the needs of users, and the OST's consequent allocation of funding to central initiatives designed to increase the interconnection between the science base and industry.

The Role of the Director General of Research Councils (DGRC)

- 4. Among the DGRC's duties are:
 - -keeping under review the boundaries between Research Councils;
 - —ensuring that Councils work together to achieve a common approach and take advantage of the possibilities for improved efficiency through joint working;

¹Fourth Report from the Science and Technology Committee, Session 1995-96, The Particle Physics and Astronomy Research Council, HC 249-1: Third Report from the Science and Technology Committee, Session 1996-97, The Natural Environment Research Council and Research into Climate Change, HC 81-1.

²Cm 2250.

-supporting the Minister and Accounting Officer...in their responsibilities for making sure the Councils are making effective and efficient use of the funds voted by Parliament.³

There is clearly a fine line to tread between ensuring that all Research Councils are as efficient as possible, and over-interference in the affairs of what are independent bodies. Letters published by "Research Fortnight" illustrated some of the difficulties faced by the DGRC in his executive role. There is a further problem in that the advice of the ABRC was consensual, and, at least toward the end of its existence, published. The allocation of the Science Budget appears to be made on the advice of the DGRC alone and that advice is not published.

5. The evidence we received from the heads of the Research Councils suggests that this picture is misleading. Professor Krebs, the Chief Executive of the NERC, told us

"In his role as Director-General Sir John clearly has an interest in looking closely at all the research councils' programmes and discussing in detail with the Chief Executives their plans for the coming years and what they have delivered in the past years. After the initial evolution, let us say, and getting to understand the new system, I think the system is now working well." ⁵

The Chairman of the BBSRC stressed its close relationship with the DGRC adding that "Sir John fights his corner extremely well." The ESRC said that they thought the new system had encouraged the Research Councils to "work more closely together." Professor Radda told us that

"We are working very closely with OST...We do not have problems because actually we have the same aim. We want to maximise the budget for the best research — whatever that budget is — and we all want to have more money. That is OST's aim as well."

Responsive Mode Funding

6. There has been some concern that the White Paper's emphasis on research to meet the needs of users, and the introduction of Technology Foresight, may have endangered basic research. This has been allied to the criticism that ROPAs⁹ and other Government schemes have restricted Research Councils' ability to fund responsive mode research. NERC told us that "Government initiatives such as ROPAs, Equipment and Foresight Challenge...impact on flexibility available to NERC Council and also drive wedges into the NERC baseline by not providing full funding for initiatives." In oral evidence Professor Krebs told us that

"these mechanisms...may inadvertently perturb the balance of our portfolio by favouring certain areas over others. For those sorts of reasons I am very happy to be involved but I think they should be just a part, probably at about the present level, of our

³Cm 2250, para 3.28.

⁴Research Fortnight, 27th March 1996.

⁵HC(1996-97)81-II, Q25.

⁶HC(1996-97)309-II, Minutes of Evidence, 26th February 1997, Q23.

⁷HC(1996-97)309-II, Minutes of Evidence, 12th February 1997, Q57.

⁸HC(1996-97)309-II, Minutes of Evidence, 5th March 1997, Q53.

⁹Realising our Potential Awards.

¹⁰HC 81-II(1996-97), р.8.

portfolio"..."I think the research that we are funding through the ROPA mechanism is strategic rather than really blue skies."11

However, Professor Baker was less concerned; he told us that "Next year we are planning to spend about £4 million within our baseline now on ROPA. That is compared to about £50 million on other grants." 12

- 7. The Allocation of the Science Budget for 1997-98 showed that there would be no increase in the level of ROPA funding and stressed that ROPA was "a responsive mode award which funds work defined solely by the researcher." Peer review processes for ROPAs have been tightened up and Research Council Chief Executives told us there was little difference in quality between projects funded through this scheme and other responsive mode awards. Allocation of the Science Budget also reveals that the President of the Board of Trade recognises the need to sustain responsive mode funding, studentships and other commitments of the Research Councils. Accordingly, only one new programme, that into transmissible spongiform encephalopathies, has been introduced this year.
- 8. There will always be strains when limited resources have to be allocated. There is also likely to be tension between the Research Councils' role as independent bodies under Royal Charter, and their need to respond to Government policy. As Sir Alistair said

"We have an inbuilt contradiction in our structure in which it is sort of acknowledged that the Council is an independent body and has a Charter. Meanwhile we regard Government, represented through the OST, as our principal shareholder and it behaves tactfully like any principal shareholder!" 16

We have been critical of some of the policies of the last five years, such as the Prior Options Reviews, but they were not the direct result of the new system.

9. There may be a temptation for Government to reconsider the system for managing, reviewing and allocating funds for public research; the evidence we have received leads us to conclude that the present system is now working well and there is, accordingly, no requirement for major change, with all the disruptions that it would bring. However, there remain a number of problems in the system, which may need to be reconsidered.

Major Research Equipment

10. There is concern that the new system may make it less easy to invest in major research equipment than did the old. In written evidence NERC remarked:

"We are aware...that top-slicing of the Science Budget will no longer be an option. This, together with the reduction in internal flexibility, means that it is difficult to see how future provision will be managed." ¹⁷

This problem is likely to become pressing. Professor Krebs told us that

¹¹HC(1996-97)81-II, QQ10, 11.

¹²HC(1996-97)309-II, Minutes of Evidence, 26 February 1997, Q48.

¹³Allocation of the Science Budget, 1997-98, para 18.

¹⁴See, for example, HC(1996-97)309-II, Minutes of Evidence, 26 February, QQ46-47 and HC(1996-97)81-II, QQ10-12.

¹⁵ Ibid, para 8.

¹⁶HC(1996-97)309-II, Minutes of Evidence, 26 February 1997, Q62.

¹⁷HC(1996-97)81-II, Ev. p.1.

"In terms of capital provision, the issue will be in the future: 'How does a science budget which is not increasing in real terms set aside the money to invest in new infrastructure?' It is not a problem unique to NERC, it is a problem for the whole science base. Paul Williams, the Director of CLRC, is very concerned about how in five to ten years' time he will be able to replace the synchrotron radiation source at Daresbury. We are concerned equally how in about five to ten years' time, when these things will become critical, we will replace our research vessels." ¹⁸

11. Even if funds for such equipment are found, the accounting treatment may be less than satisfactory. Dr Rudge, the Chairman of the EPSRC, told us that

"I think there are some serious flaws in the way the Treasury funds these things, or does not fund them"..."If you take an example where you need £100 million to fund a new major facility...it is quite clear that if you did that on an annual basis, that is if you just took it out of one year's expenditure, it would virtually stop the issue of any grants in that year...At the moment we do not seem to have a normal commercial facility which would allow, for example, the research organisation that is going to support this facility to raise £100 million and then we pay for it on a usage basis rather than having to lump sum it as one single payment. There is a need for more sophistication in terms of the way these things are funded." 19

The introduction of resource accounting²⁰ is intended to make the government more business like in the way in which it deals with the nation's money. As the new system evolves, it may be that it comes to resolve issues such as this, but currently it has not yet evolved to the stage where this is clear.

12. Sir David Plastow felt that "One of the problems is that more and more we are getting into collaborative mode with other funders, charities and companies", which was proving more difficult because "they have their way of doing things." The powerful role of the DGRC in allocating the Science Budget, and the failure to publish comprehensive advice on this matter, mean that it is hard to determine how great a problem the funding of capital facilities will be in reality. Nonetheless, it seems clear that the Science Budget will shortly have to deal with a number of major capital projects. We recommend that its ability to make investments for the future be kept under close review. Given the rising costs of science, collaboration will increasingly be the only means by which some scientific experiments may be carried out at all. The Government must develop sensible and flexible financial systems to assist Research Councils to achieve maximum value from their endeavours.

The Dual Support System

13. Currently, funding for research in universities comes through the "dual support" system whereby funds for specific research projects are channelled to universities via the Research Councils and, as far as science is concerned, funds for seed corn research, infrastructure and some overhead costs come through the Higher Education Funding Councils. The Higher Education Funding Councils have become increasingly more selective in their funding, and the most recent Research Assessment Exercise was followed by an even greater concentration of resources on highly rated departments.

¹⁸HC(1996-97)81-II, Q90.

¹⁹HC(1996-97)309-II, Minutes of Evidence, 5th March 1997, QQ26-27.

²⁰Better Accounting for the Taxpayer's Money, Cm 2929.

²¹HC(1996-97)309-II, Minutes of Evidence, 5th March 1997, Q60.

14. The White Paper stressed the need for a "mutually-reinforcing partnership between the two sides of the dual support system at all levels — within Government, between Funding and Research Councils and between Research Councils and universities." The Science and Engineering Base Co-ordinating Committee (SEBCC), which contains Research Council Chief Executives and the Chief Executives of the Funding Councils, was set up to "consider transdepartmental issues affecting the science and engineering base, referring, as necessary, to Ministerial and official committees on science and technology." However, we did not get the impression that the SEBCC played a significant role in the dialogue between the Research Councils and the Funding Councils. The EPSRC memorandum stated that "While there is undoubtedly room for improved interaction...the formal forum for interaction between the funding councils and the research council is the SEBCC...officials meet on an 'as necessary' basis to deal with particular issues..." Professor Baker implicitly called for a better coordination mechanism and did not appear to consider the SEBCC had a role to play. The MRC stated that "...partnerships with universities tend to develop bi-laterally rather than through the Funding Councils."

15. In its First Report in 1992 the Committee stated that

"...we consider it important, as do our colleagues on the House of Lords Select Committee on Science and Technology, that 'universities...continue to be regarded as whole institutions' and we share witnesses' fears that a further redistribution of funds might make the HEIs overly dependent on the Research Councils. We therefore agree that dual funding should continue."

However, since then the system has changed by becoming more selective. Professor Amann thought that although the present system was viable, it was under strain and that "there probably is a better way of doing it." Given the increasing selectivity of the HEFCs and the lack of co-ordination between the two parts of the system, we asked whether there would be any advantage in transferring all research funding to the Research Councils.

16. Dr Rudge noted that "...if we take our research project portfolio and look at the distribution of our spend and compare it with the research assessment exercise, the two things...correlate totally."²⁹ He believed that the Research Councils should take over all research funding:

"...as a businessman it always seems a nonsense to me that the research council funds research with less than the full overhead. That is, in taking the money from us to do a piece of research they are actually not able to do it based on the money that we pay them because we do not pay the full overhead...it would be far more effective to have the research councils paying the full overhead. You put the research where the researchers are and they get the full overhead. They can fund all the administration of the department and fund whatever they need to fund in the way of infrastructure because they get the full overhead directly, rather than this rather contrived process of going through the HEFC."

²²Cm 2250, para 3.45.

²³HC(1996-97)309-II, RCD 6.

²⁴HC(1996-97)309-II, Minutes of Evidence, 26 February, Q70, see also 5 March, Q63.

²⁵HC(1996-97)309-II, RCD 8.

²⁶HL(1992-93)34, para 46.

²⁷HC(1992-93)228-I, para 45.

²⁸HC(1996-97)309-II, Minutes of Evidence, 12th February 1997, Q76.

²⁹HC(1996-97)309-II, Minutes of Evidence, 5th March 1997, Q37.

³⁰ Ibid.

17. Dr Rudge was clear that even if the EPSRC was given the research component of the HEFC grant its research priorities would not change.³¹ In contrast, Professor Amann believed that for Research Councils to take over the funding of all research would

"place on our shoulders a greater responsibility for making sure that we maximise the participation of all active researchers in Britain. It would place a much stronger responsibility on us than we have at present for developing regional links. Just to come back to a question that was asked earlier, it would actually give us the resources to deal with the national infrastructure problem which is one of the major problems with the present dual support system." 32

18. There are clearly problems in the current administration of the dual support system. It may be that they stem from poor co-ordination, rather than fundamental failures but, given that the SEBCC contains all interested parties, it would be hard to devise a better coordination mechanism. It is hard to escape the conclusion that the rewards from co-ordination do not appear sufficiently high to make those concerned ensure that the system works The National Committee of Inquiry into Higher Education under the Chairmanship of Sir Ron Dearing has research expenditure within its remit.³³ Whatever the Committee proposes, we believe that it is important that universities should have some resources to allow them to decide their own priorities, to provide well found laboratories in which relatively inexpensive research can be conducted without the need for Research Council backing, and to pay for general infrastructural costs. If Research Councils were to be given power to allocate the entire research budget they would have the responsibility to ensure that support was spread widely throughout the UK university system and that the national science base was maintained. We do not make any recommendations at this stage. We hope that our successor committee in the new Parliament will consider this issue, once the Dearing Committee has reported.

Departmental Research Responsibilities

19. The White Paper recognised the need for departments and Research Councils to develop close relationships; it stated that they should be "fully informed of each other's current programme and future plans" and proposed that each Research Council formed concordats with departments which sponsored significant amounts of their research. The MRC's concordat with the NHS seems to be working satisfactorily. Professor Radda told us that

"We have very regular meetings with the health departments who actually have input into the choice of projects, as we do in the deployment of part of their budget." 35

Other Research Councils do not appear to have developed such close and constructive working relationships with government departments.

20. We received fullest evidence on this from the BBSRC; during our recent inquiry into Cloning of Animals from Adult Cells³⁶ it became clear that MAFF had withdrawn funding

³¹*Ibid*, Q38.

³²HC(1996-97)309-II, Minutes of Evidence, 12th February, Q77.

³³National Committee of Inquiry into Higher Education, chaired by Sir Ron Dearing. The terms of reference of which are: "To make recommendations on how the purpose, shape, structure, size and funding of higher education, including support for students, should develop to meet the needs of the United Kingdom over the next 20 years, recognising that higher education embraces teaching, learning, scholarship and research."

³⁴Realising our Potential, Cm 2250, para 3.40.

³⁵HC(1996-97)309-II, Minutes of Evidence, 5th March 1997, Q53.

³⁶Fifth Report from the Science and Technology Committee, Session 1996-97, *The Cloning of Animals from Adult Cells*, HC 373.

from the cloning project at the Roslin Institute at short notice. Since then, the BBSRC has provided us with evidence indicating that this was not an isolated case.³⁷ In his submission Professor Baker stated that the costs of redundancies which had to be made because MAFF imposed large cuts in commissioned research at short notice amounted to between £3 to £5 million per annum. He pointed out that following the Rothschild Report³⁸ in 1971 a significant amount of funding was transferred from Research Councils to departments in order to help create a customer/contractor relationship. In 1988 the House of Lords Science and Technology Committee criticised MAFF's commissioning arrangements and recommended that at least 75 per cent. of research funds be returned to the Agriculture and Food Research Council.³⁹ This has not been done.⁴⁰ Professor Baker told us MAFF had attempted to address the problem by reorganising its system for commissioning research by integrating "science and policy formation."41 However, in order for the customer/contractor relationship to work efficiently departments had to operate as "intelligent" customers; according to the BBSRC "not all policy customers have had adequate experience or understanding of research"; this has led to the current situation where BBSRC sponsored institutes have often had insufficient time to reorganise their programmes or secure alternative sources of funding.42 Professor Baker believed that there needed to be either a greater involvement by BBSRC within the MAFF decision making process or the return of substantial research funding to the BBSRC's control.

- 21. Although the BBSRC evidence is the most extensive, other Research Councils provided examples of similar difficulties in their relationship with government departments. Our inquiry into NERC revealed instances of costs being transferred to the Science Budget from other departments, and of departmental policies hampering the ability of the Research Council to maintain its data sets.⁴³ The EPSRC told us that the DTI had withdrawn funding from a joint Faraday⁴⁴ scheme. As a consequence, the EPSRC had to increase its financial contribution to continue with the scheme and was concerned that, without DTI support, it would not be successful in future.⁴⁵
- 22. The Rothschild Report⁴⁶ envisaged that as well as departments using the money to purchase the research they needed, they should, in addition, provide funds for less directed research through a research overhead of ten per cent on their contracts. As the Lords' Science and Technology Committee noted "Notoriously, the fundamental research overhead...had hardly ever been paid; according to the Royal Society of Chemistry, departments have often failed to offer even conventional overheads."⁴⁷ The introduction of concordats between departments and Research Councils was meant to ease these problems. The customer/contractor relationship was implemented to increase the efficient spending of public research funds. However, this must be balanced by an appropriate dialogue between customer and contractor. The evidence we have received suggests that almost all Research Councils are facing difficulties because government departments will not recognise their responsibilities for the health of the science base. We have not had the opportunity to take

³⁷HC(1996-97)309-II, RCE 13.

³⁸The Organisation and Management of Government Research and Development, Cm 4814.

³⁹HL(1988-89)13.

⁴⁰Cm 1127.

⁴¹HC(1996-97)309-II, RCE 13.

⁴²Ibid.

⁴³HC(1996-97)81-I, para 54-61.

⁴⁴The Scheme is designed to bridge the gap between universities and small and medium sized firms. Dr Rudge told us that he was "the originator of the Faraday concept with one other and we did this within the Prince of Wales' Innovation Committee that was chaired by Sir John Fairclough." (Q9).

⁴⁵HC(1996-97)309-II, Minutes of Evidence, 5th March 1997, Q8, Q11.

⁴⁶Cm 4814.

⁴⁷HL(1993-94)12-I, para 2.38.

evidence from Departments. If the election had not been imminent, we would have conducted an inquiry to establish the extent of these problems and the remedies for them. Any pressure on the Science Base caused by transfer of expenditure from departments to the Science Budget or the cancellation of contracts at short notice must be dealt with.

Attribution

- 23. Another area where the actions of Departments can affect science base funding is the way EU research is attributed to the baselines of government departments. In our recent report on the *Natural Environment Research Council and Research into Climate Change* we expressed concern that "changes in the attribution of European Union funding may reduce the Science Budget by stealth." We have subsequently received a submission from the BBSRC which suggests this may be a widespread problem. The BBSRC claim that there are pressures to attribute EU research programmes to the OST because they "do not accord with their domestic policy agenda." This is despite the fact that the Departments have led the negotiations in Brussels.
- 24. The BBSRC memorandum also points out that as a result of departments' zeal to attribute funds to the OST, the OST and Research Councils are reluctant to offer advice "for fear that this will be used in evidence against them." If this is indicative of the general position it represents an extremely grave situation. The OST's remit within Government is to oversee and co-ordinate the UK's scientific effort, not to bear the costs of research incurred by individual departments, simply because it has exercised its role of oversight. We would urge our successor Committee to undertake an examination of the relationship between the Science Budget and individual Departments' expenditure on science and technology; this should include issues such as attribution and the effects of changes in the level of Departmental commissions on both individual institutes and Research Council budgets as a whole.

⁴⁸HC(1996-97)81-I, para 48.

⁴⁹HC(1996-97)309-II, RCE 14.

⁵⁰ Ibid.

PROCEEDINGS OF THE COMMITTEE RELATING TO THE REPORT

TUESDAY, 18 MARCH 1997

Members present:

Sir Giles Shaw, in the Chair

Mr Spencer Batiste Dr Jeremy Bray Dr Lynne Jones Mr Andrew Miller Sir Trevor Skeet

The Committee deliberated.

Draft Report (The Research Council System: Issues for the Future), proposed by the Chairman, brought up and read.

Ordered, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 24 read and agreed to.

Resolved, That the Report be the Fourth Report of the Committee to the House.

Ordered, That the Chairman do make the Report to the House.

Several papers were ordered to be appended to the Minutes of Evidence.

Ordered, That the Appendices to the Minutes of Evidence taken before the Committee be reported to the House. — (The Chairman.)

[Adjourned till Thursday 20 March 1997 at a quarter past Eleven o'clock.

LIST OF WITNESSES

VOLUME II

Wednesday 12th February 1997

Dr Bruce Smith, Chairman, Professor Ronald Amann, Chief Executive and Glyn Davies, Director of Resources, Economic and Social Research Council.

Wednesday 26th February 1997

Sir Alistair Grant, Chairman, Professor Raymond Baker, Chief Executive, and Mr Steve Visscher, Finance Officer, Biotechnology and Biological Sciences Research Council.

Wednesday 5th March 1997

Sir David Plastow, Chairman and Professor George Radda, Chief Executive, Medical Research Council.

Dr Alan Rudge, Chairman, Professor Richard Brook, Chief Executive, and Mr Peter Maxwell, Director of Finance & Administration, Engineering and Physical Sciences Research Council.

LIST OF MEMORANDA INCLUDED IN THE MINUTES OF EVIDENCE

VOLUME II

- 1. Memorandum from the Economic and Social Research Council (RCD 9).
- 2. Further memorandum from the Economic and Social Research Council (RCD 11).
- 3. Memorandum from the Biotechnology and Biological Sciences Research Council (RCD 1).
- 4. Further memorandum from the Biotechnology and Biological Sciences Research Council (RCD 5).
- 5. Memorandum from the Medical Research Council (RCD 8).
- 6. Memorandum from the Engineering and Physical Sciences Research Council (RCD 2).
- 7. Further memorandum from the Engineering and Physical Sciences Research Council (RCD 6).

LIST OF APPENDICES TO THE MINUTES OF EVIDENCE

VOLUME II

- 1. Memorandum from the Particle Physics and Astronomy Research Council (RCD 10).
- 2. Memorandum from the Biotechnology and Biological Sciences Research Council (RCD 13).
- 3. Further memorandum from the Biotechnology and Biological Sciences Research Council (RCD 14).



UNPRINTED MEMORANDA

Additional memoranda have been received by the following and have been reported to the House, but to save printing costs they have not been printed and copies have been placed in the House of Commons Library where they may be inspected by Members. Other copies are in the Record Office, House of Lords, and are available to the public for inspection. Requests for inspection should be addressed to the Record Office, House of Lords, London, SW1. (Tel 071-219 3074). Hours of inspection are from 9.30 am to 5.30 pm on Mondays to Fridays.

Economic and Social Research Council (RCD 4 & RBE 1)
Committee of Vice Chancellors and Principals (RBE 2)
Medical Research Council (RBE 3)
Engineering and Physical Sciences Research Council (RBE 4)
Higher Education Funding Council for England (RBE 5)
Natural Environment Research Council (RBE 6)
Biotechnology and Biological Sciences Research Council (RBE 7)
Particle Physics and Astronomy Research Council (RBE 8)
HM Treasury (RBE 9)
Higher Education Funding Council for Wales (RBE 10)
Office of Science and Technology (RBE 11)



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